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APPRAISEMENTS

By HERBERT G. STOCKWELL, C. P. A., President of the Audit and Appraisement Company of America.

To obtain a clear understanding of the scope of this semi-technical business, it will be convenient to begin by defining the legal terms involved. To appraise is to value; to estimate the worth of; and an appraisement is a just valuation of property. Appraisements are required by law to be made of the property of persons dying intestate, of insolvents and others, when an inventory of goods ought to be made and a just valuation put upon them. An appraiser is one who sets a value upon goods; a person appointed and sworn to estimate a fixed value upon goods or estates; one who appraises or estimates worth of any kind, intellectual, moral or material; specifically a person licensed and sworn to estimate and fix the value of an estate.

Appraisers are appointed by the court in special cases coming before them, such as cases to fix the value of estates. These appraisers' duties end with the making of an inventory and appraisement of the property belonging to the estate. There are also standing officers appointed by the municipality, such as mercantile appraisers, whose duties consist in fixing the value of a business for the purposes of taxation; also custom house appraisers who place values on imported articles for the purpose of fixing the amount of duties to be collected on articles passing through the custom house.

The business of making appraisements is not connected with the courts or court business except so far as appraisers may be appointed by the courts from the staff of appraisement companies. The volume of the business comes from corporations and firms who desire an outside independent opinion of the values of their assets and from investment syndicates or companies who require an investigation of the plant or enterprise offered to them to finance. The making of appraisements as a vocation is related to the business man much as is the work of the auditor or expert accountant. The appraiser and auditor are both experts in their line of business, whose services may be obtained by the public.

The handling of large matters requires capital in this line of business as well as in mercantile and manufacturing pursuits; thus the business of auditing has produced audit companies and that of appraising has produced appraising companies. As will be shown later, the proper examination of corporations calls for the services of both the accountant and engineer, so that these occupations, naturally closely associated, have been combined in a single organization.

Appraisements are made for the following purposes:

To charge the proper amount to receivers, trustees, executors, administrators and guardians.

To ascertain the proper amount of depreciation.

To fix the amount and value of a manufacturing plant in consolidation or mergers.

To ascertain the amount of cost of reproduction in case of fire, and incidentally to fix the proper amount of insurance.

To ascertain whether the materials consumed in industrial plants have been properly charged and thus to test the accuracy of book accounts.

To properly close business books; the exact value of stock on hand being ascertained for this purpose.

The expert accountant cannot alone audit the earnings of any business. The expert appraiser and the expert accountant must work together.

An appraisement is an expression of an opinion in the terms of money. All articles of commerce are thought of with regard to their value in dollars and cents. No man can know the exact amount of money which he can obtain for merchandise until he actually sells it. The actual value of assets is the amount which they will realize in cash.

The exchange of money into goods and the subsequent exchange of the goods back into money constitutes trade and commerce. If the business man who parts with his money in exchange for goods is able to complete the re-exchange into more money than he had originally, he has made a successful business transaction. The object of an appraisement is to ascertain the true position of a business by estimating the amount of cash which would be realized if the business were closed out and the assets converted into cash.

Appraisements are based upon an estimate of value. The natural prejudice which men have in favor of their own possessions, makes it difficult for them to express an unbiased view of the value of their assets. The expert appraiser is one who from his experience in calculating the value of things, can estimate without prejudice the realizable value of business assets.

While the ascertainment of the cash value of assets is the object of appraisements, it is not always based upon the immediate cash value. In a going concern the value of buildings and machinery may be much greater to the business as a going business than they would be if torn down and sold immediately. In such cases the true basis for appraisement is not the actual cash realizable, but the value of the assets to the plant as a plant. It is largely a question of deducting the depreciation from the original cost. If a machine cost \$1,000 it is worth \$1,000 to the business, less the amount of wear and tear to which it has been subjected since it was purchased. The appraiser calculates the amount of life left in the machine at the time of his appraisement, and that is the basis of his appraisement. The \$1,000 machine if sold the second day after it was set up would sell as a second-hand machine, and its cash value would be much less than its cost price the day before.

Appraisements for Proof of Loss by Fire.

Appraisements for fire insurance purposes calls for another basis of values. After a fire, appraisements must be made to fix the amount of loss. With few exceptions, fire insurance policies are issued in what is known as the New York Standard Form. In the contract under this form the insured is required within sixty days after the fire to make a detailed inventory of cash and all the articles on which he claims partial or total loss. He must set out the cash value of each item and shall furnish, if required, verified plans and specifications of any buildings, fixtures or machinery destroyed or damaged. Many business men find difficulty in making a detailed inventory after a fire. While their books may show the total cost of the entire plant, the bookkeeping methods usually employed do not afford much assistance in listing the items of articles destroyed. To guard against this difficulty, the forehanded business man has the appraisement made before the fire occurs. The expert appraisers

are called in to make a scheduled list of every article in his place of business; where factories are appraised usually floor plans are made showing the location of every machine of importance.

The basis upon which the inventory for fire insurance purposes is made, is the cost to the insured to replace the articles destroyed, including the first cost, the freight and cartage, and the labor of putting the article in position. Whatever the cost may have been originally is not important. The inquiry is directed to the cost of replacing the article at the time of the appraisement. A manufacturing plant may have been erected when the price of building materials and machinery were lower than the average market price. At the time the appraisement is made, the similar materials and machinery may be very much higher in price than the amount of original cost. The appraisement in such cases may produce higher values than the actual cost of the plant.

The questin is not, "For what amount can these buildings and materials be sold?" It is rather directed toward the cost of rebuilding and equipping a plant in as good condition as it now stands. This basis is made necessary by the insurance companies who, under their contract, have the option of paying cash for the articles destroyed, or to repair, rebuild or replace the property destroyed with other of like kind and quality within a reasonable time.

Appraisement in Conjunction with Audits.

When an auditor begins an examination of a corporation's books, he usually counts the cash on hand and verifies the balance in bank. If the corporation holds stocks and bonds as an investment, the auditor will verify the existence thereof by actual count. It is rare, however, that he takes account of stock on hand or calculates the actual value of the building or machinery. The reason is two-fold: first, the management objects to such an inspection, claiming that there can be nothing wrong with the stock or other plant assets; second, very few accountants have the ability or training to do such work.

The auditor can certify that the financial statements of the company agree with the books, and in many cases the auditor confines his certificate to some such expressions, but where there is a question of earnings or where the true worth of a plant is sought, the account-

ant, as a rule, cannot conscientiously certify thereto without the assistance of expert appraisers. There is really no more reason why an accountant should count the cash than count the stock, except that it is easier to verify the actual cash than to inventory and value the stock. A question of ease cannot affect or destroy a principle.

In past years the accountant's services have been used chiefly to detect petty defalcations, but of late, accountants are relied upon to do more than this, and, whether justly or not, the actual fact depending upon the terms of the accountant's employment, the investing public believes that when an accountant certifies to the correctness of the books he in reality is certifying to the fact that the books show the true financial position of the company under examination.

Audit of Earnings.

While the audit of the books of a corporation will disclose and uncover many irregularities and falsifications, if they exist, the earnings of a corporation cannot be satisfactorily ascertained merely by checking up or auditing a set of books. Concealment of operating expenses is frequently accomplished by the failure or omission to charge to the operating expense accounts all of the supplies and materials actually consumed. If the officers of a corporation wish to make a good showing, they can neglect to enter on the books many items of expense and the omission may not be detected.

In a traction company it is customary to charge to supply account a large number of small articles which are purchased to be used when required. If the books are properly kept, the proper expense account will be charged with each and every article taken from the storehouse and used in the maintenance of the road. The supply account is credited with the amount charged to the expense accounts and the balance in the supply account should always equal the amount of supplies on hand. If articles are actually used and not charged to the expense account, the result is a false statement of affairs. First, the operating expenses have been understated; and second, the assets on hand have been overstated, since the supply account is carried on the balance sheet as an asset. Then again, supplies consumed may be charged to construction account and not to maintenance account. In such a case, a thorough detailed audit would probably reveal the misdirection of the charge, but it might

not reveal the omissions, as the entries would not be in the books at all. At all events the accountant would have to go into much greater detail regarding the records of the supply room than is usually done, and there he might or might not find the accounts kept in such a manner as would enable him to trace misdirections and omissions.

The expert appraiser would take an account of all the supplies on hand. If the supplies were being consumed without the proper entries being made, the total of the amount on hand would be less than the amount called for by the supply account. Where supplies were being consumed in maintenance and improperly charged to construction, they would also be disclosed by an expert examination of the plant.

The corporation officers may not desire to show the full amount of the earnings of a company. A secret reserve may be accumulated without the knowledge of the auditor. The books may be carefully checked up and yet the stockholders may be improperly denied dividends actually earned. This is accomplished by several methods, one of which is charging off too large an amount for depreciation. Another is to charge expense accounts with items of capital expenditure. Such methods are used for stock jobbing purposes and are facilitated by the auditor's certificate that he finds the books correct. The appraiser examines the buildings, machinery, supplies and materials, and the auditor examines the books. A joint examination by the two experts is absolutely necessary to fix the true earnings of a corporation.

Over-Valuation of Plants.

Where the assets of a manufacturing plant are overvalued on the books, how can the expert accountant detect it? It is not his function to examine the physical assets. This duty belongs to the expert appraiser. The public does not seem to realize that the books of a corporation may be in fine condition so far as the bookkeeping methods and customs go, and yet the corporation may in reality be bankrupt. The certificate of the accountants that the published reports agree with the books is taken to mean more than it says. Some of the recent industrial collapses were preceded by statements showing the affairs of a corporation to be in good shape. These statements contained the accountant's certificate and yet the corporation bubbles collapsed. All accountant's certificates should be

scrutinized to see whether they state that the assets are worth all that the books call for.

A small railway company was examined by order of a committee of bondholders. The books were carefully audited and found to be in proper form, and so far as could be seen by the accountants, were correct. On the balance sheet appeared an item of \$100,000 called "supply account." The account supposedly represented the amount of miscellaneous supplies on hand not vet used in the operation of the railway. In railway bookkeeping the operating expenses are divided into various classified expense accounts and the cost of articles consumed in the operation of the road is charged to the expense account according to the expense classification. It is the custom to purchase supplies ahead of the actual needs and charge the cost of such articles to a general supply account. When the articles are actually needed they are taken from the store-room and charged to the proper account, at the same time being credited to supply account at cost. The result of this method is to show in the balance of the supply account the actual amount of unconsumed supplies.

In the case of the company under examination the supply account stood on the ledger as an asset of \$100,000 and, so far as the accountant could discover, the books were correct, but he asked that an inventory be taken of the supplies as a precaution against a possible overstatement of earnings on the books. The inventory revealed a shortage in the supply account of \$47,000. In other words, instead of having on hand the \$100,000 that the books called for, the store-room contained as a matter of fact a total of only \$53,000. The investigation that followed disclosed the fact that large amounts of supplies were consumed every month without being charged at all. If these supplies had been properly charged to the operating expenses, the earnings of the company would have shown \$47,000 less, but the management did not want the earnings to show less than reported and this was their method of inflating the earnings.

In another case where the plant was offered for sale, the books were carefully audited and certified as being correct, but an appraisement of the plant made shortly after by experts showed that the value of the plant carried on the books was about three times greater than the real value. The balance sheet showed a prosperous condition according to the books, but the adjusted statement of assets revealed an insolvent condition.

The expert accountant's certificates in such cases are not worth so much as the public apparently believes. The true condition can only be discovered by an audit in conjunction and concurrent with an appraisement.

Appraisement Methods.

The business of making inventories and appraisements is conducted by a staff of experienced experts in general machinery and construction. A mechanical engineer, builder, draughtsman, clerks and trained mechanics constitute the general staff, and these men are competent to inventory and appraise all ordinary buildings and machinery. In cases of special machinery or construction, a proper understanding of which calls for extended experience in special lines, the special staff is called upon for experts familiar with the particular kind of machinery under examination.

This special staff consists of experts experienced in special technical lines, and men of recognized authority in their own fields. Arrangements are made with such men by which their services can be obtained as required for a per diem compensation. As an illustration: In a stove foundry the style of stoves changes frequently. New patterns are constantly required, the old patterns becoming obsolete. The men on the general staff can inventory all the machinery, tools and fixtures, and appraise everything excepting the patterns and the manufactured stock of stoves. It requires a man experienced in a stove business to properly value these things.

When an appraisement of a manufacturing plant is contemplated, and the proprietors wish to know the cost, the appraisement company sends a representative to go over the plant. He estimates the time required to take down each and every article and put a value upon it, and he determines from the nature of the plant the kind of men required to do the work. After this calculation is made, the price is fixed and if accepted, the work is begun in due course.

The circumstances surrounding each plant call for variations in method of procedure, but ordinarily the men selected to make an inventory consist of an expert mechanical engineer with a clerk, and in cases where heavy articles must be moved to facilitate examination, one or more laborers.

Specially ruled paper is prepared in advance with convenient binders which also form a backing for the sheets. The expert, familiar with the machines under examination, calls off a description of each machine and other articles, room by room, floor by floor. The clerk who follows him about takes down the descriptions as called to him. This is continued day after day until every article in the plant is listed, from a huge engine to the waste paper basket in the office.

At the same time the architect engineer makes sketches of the buildings and floor plans of each floor, taking measurements and descriptions sufficient for the draughtsman to draw a set of plans, showing the construction of each building and the location on each floor of all large machines. Generally all power-driven machines are tagged and numbered. A corresponding number is inserted on the plans and in the inventory. When the report is complete, the manufacturer can locate on his plan the position of every machine, and by referring to the machine number in his inventory, can easily find a full description of the machine with the value placed thereon.

Consolidations

When several manufacturing plants are consolidated, the question of the proper price to be paid for each plant entering the consolidation is at once raised. If the price is not too great, the earnings of the consolidation should be larger than the aggregate of the earnings of all the constituent companies. Besides the advantage of control of production, the savings which can be made would naturally tend to increase the profits. But the natural desire of the owners of the individual plants to obtain the greatest possible price leads to the danger of over-capitalization. This tendency is naturally increased by the large fees for services charged by the consolidation promoters.

In cases where the promoters are determined to over-capitalize, the expert appraiser's services will not be used. But where it is the desire of those interested to come together on a proper capitalization, the appraisement of each plant in conjunction with an audit of the books of each company, will fix the proper amount to be paid each constituent company as well as the proper total capitalization, in a more satisfactory way than can be done by any other method.

The president of one of the large trusts which are now in the hands of the receivers, is reported to have said on the witness stand that "certain styles of bookkeeping will show earnings under any circumstances." In view of the large number of corporation collapses which occurred during the past year or two, this expression of opinion is very important, coming as it does from the president of one of the largest of the wrecks. If the purchasers of the stocks and bonds of the trust referred to had insisted on an appraisement of the plant before investing, they would have retained their money, since the receiver's report shows over-valuation of the assets and mis-statements of the earnings. The Receiver is said to have characterized the trust as an "artistic swindle."

As an illustration of the extent to which some manufacturing corporations are over-capitalized, the facts concerning one small company are given. A statement of assets and liabilities was prepared from the books, as follows:

Assets.

Plant, machinery, tools and fixtures\$	3175,000.00
Materials	1,200.00
Cash on hand	760.50
Accounts receivable	2,312.82
Treasury stock	75,000.00
-	\$254,273.32
Liabilities.	
Capital stock, common\$	3125,000.00
Capital stock, preferred	125,000.00
Accounts payable	2,416.80
Surplus	1,856.52
_	\$254,273.32

The management offered a block of the treasury stock to a capitalist, who asked to be allowed to have an audit of the books made. The books so far as the entries were concerned checked up all right. The company had been formed about six months prior to the examination and the opening entries were regular. A comparison of the amount carried as plant with the minute books of directors' meetings showed that the directors had regularly passed upon the purchase of the plant for the amount at which it was carried (\$175,000) paying for the same by the issue of all its common stock and \$50,000 of its preferred stock.

This accountant was curious enough to wish to inspect the plant. The investigation which followed disclosed the fact that the officers of the corporation had been in business in a small way prior to the incorporation, with a total of visible assets amounting to not over \$10,000. As directors of the corporation they issued \$175,000 worth of stock to themselves for the assets and business, and retained \$75,000 preferred stock to sell to their friends.

Prior to incorporation they had a hard scratching to make a living out of the business. The promoting fever struck them, and they became easily convinced that the proper way to make money was by the adoption of the principles of high finance.

A readjusted balance sheet was prepared by the accountant as follows:

Assets.
Machines and tools\$7,000.00
Book accounts good
Cash on hand 760.50
Materials 700.00
\$10,180.58
Liabilities.
Accounts payable, on books \$2,416.80
Accounts payable, not on books 1,436.00
\$2.852.80

It will be seen that the real capital of this company was about \$6,000 at the time of the examination; and its nominal capital \$250,000 less the \$75,000 carried in the treasury, or, \$175,000. While the stock was originally in the hands of three men they had sold to a considerable number of their friends shares issued to them for the plant and had made the investment attractive by offering two shares of common as a bonus with every share of preferred. At the time of the examination the stock was held by this considerable number who had been let in on the ground floor. The business as a very small affair produced a small income. These financeers were not willing to content themselves with the living and wanted to sell out. The stock was not selling as rapidly as necessary for their purpose. Hence this attempt to sell some of the treasury stock, because the sale of the treasury stock would produce money for the company and a little boom in business would make it easier for the managers to dispose of their own stock.